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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,384	12/30/2003	Dana C. Bookbinder	SP03-180	8955

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CORNING INCORPORATED  
SP-TI-3-1  
CORNING, NY 14831

EXAMINER
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HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/750,384	Applicant(s) BOOKBINDER ET AL.	
	Examiner John Hoffmann	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 5, 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 9-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Specie A in the reply filed on 12/26/2006 is acknowledged.

Claims 5 and 7-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected specie, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 22 December 2006.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 6 and 9-15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "carrier gas" is indefinite as to its meaning. Although the term is usually well understood, here it appears that applicant is using some special meaning. In the specification it is disclosed that oxygen is carrier gas and the metal vapor is the species which is carried by the carrier. But claim 1 indicates that the metal vapor is part of the carrier gas. It is unclear whether there must be some third component which is carried by the oxygen and the metal vapor. To put it another way: the term "carrier" must carry some weight: Examiner cannot ignore any claim terms as having no weight. Thus it is

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deemed that "carrier gas" must be narrower in scope than just "gas" – but it is unclear what that scope might possibly be.

The same sort of confusion exists with "peak" - for example in claim 4. Examiner must assign some meaning to the term, but none seems reasonable. There is no explanation in the specification as to what is meant. To put it another way: one should be able to be able to substantially copy the invention of claim 3, even with a concentration above 0.01 wt % - as long as it is not a "peak" concentration. But this seems to be impossible with any standard definition for "peak" – thus it is assumed that applicant is using some special definition for "peak". There is no indication as to what that special definition is.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Elion 4473599.

Looking to figure 2 of Elion: 12 is the glass rod that is inserted in the glass tube 28. The heating is disclosed at least at col. 3, line 53. The flowing a carrier gas is disclosed at col. 3, line 59. Sodium hydroxide comprises both sodium and oxygen.

Claims 1-4, 6, 9-10 and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by DiGiovanni 2004/0031290.

Figure 7 represents the inserting step of glass rod 50 into glass tube 62. 72 represents the heating step. A gas comprising oxygen is flowed between the tube and the rod; see paragraph [0057]. It is deemed inherent that the gas also comprises alkali metal vapor. From MPEP 2112: "The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103." [0064] discloses the use of potassium hydroxide. [0035] and [0036] indicate that the hydroxides creates vapors. Applicant's disclosure also indicates that potassium can form vapors. It is deemed inherent that at least some of the DiGiovanni potassium is vaporized and swept away by the oxygen-containing gas. Such gas would flow between at least of portion of the tube and a portion of the rod.

Claim 2 see figures 9-10.

Claims 3-4: See [0064] which indicates that the pores have a liquid with a 3% concentration of a metal oxide – a hydroxide is deemed to be an oxide – prior to the inserting step.

Claims 6 and 13-14: see [0059].

Claim 9: see at least [0026] and [0003].

Claim 10: [0042] refers to using non-chlorine halides (i.e. "other halide"). Given that there are only 5 halides, such is equivalent to referring to fluorine, iodine, bromine and astatine. The tube comprises fluorine because the fluorine is in the middle of the tube. Also, one would expect that some of the fluorine would diffuse into the glass of the tube.

Claim 12: [0003] disclose "highest purity" glass. This reasonably suggests essentially no chlorine or any other impurity. See also [0025] which reasonably suggest no chlorine – since sol gel techniques do not require any chlorine.

### ***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4, 6, 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiGiovanni 2004/0031290.

See how DiGiovanni is applied above. Everything except the metal vapor is taught. It would have been obvious to expect there to be potassium vapors that get swept away by the oxygen gas.

As to claim 11: Examiner takes Official Notice that it is well known that OH groups cause absorption. Corning owns numerous patents which show this. It would have been obvious to have the OH content as low as possible so as to eliminate the as much absorption as possible. See also [0042] which teaches such dehydration – but fails to indicate the amount of dehydration.

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Claim 15 is are rejected under 35 U.S.C. 103(a) as being unpatentable over DiGiovanni 2004/0031290 as applied to claim 1, and further in view of Terasawa 6062046.

Claim 16 requires adding a layer in the tube. [0002] of DiGiovanni discloses MCVD which adds a layer to the inside of a tube. Figures 4 and 5 of Terasawa (and the associated text) show that one can use MCVD to create different profiles in fibers. It would have been obvious to add layers via MCVD in the DiGiovanni process, depending upon the type of fiber profile one desires.

It is also noted that from [0003] of Applicant's specification that MCVD is a typical fiber making process.

### ***Information Disclosure Statement***

The information disclosure statement filed 8-26-05 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

No copy of the Japanese patent was submitted. There was only an EPO abstract for it.



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**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Krohn, Sigel, Ikeda, and Bachmann are cited as being art found during the prior art search.

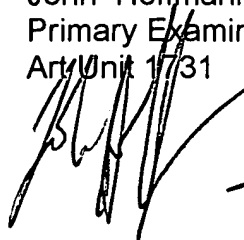
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMH

John Hoffmann  
Primary Examiner  
Art Unit 1731



3-2-07